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(54) Title: HUMAN PROSTATE CANCER CELL FACTOR(S) THAT INDUCE STEM CELL COMMITMENT AND OSTEOGENESIS

(57) Abstract: Human prostate cancer (CaP) cells secrete biological activities that recruit cells to differentiate into the osteoblast lineage. Conditioned medium (CM) produced by metastatic human CaP cells (DuCaP and VCaP) induced commitment and differentiation of mesenchymal stem cells (MSC) into osteoblasts. CaP-CM induces cellular condensation into tissue-like aggregates. In turn, these tissue-like aggregates secrete and mineralize a bone matrix, forming bone outside the body (*ex vivo*). Thus, conditioned media and/or proteins isolated therefrom may be used to facilitate bone formation in fracture repair and bone diseases.



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